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EXAMINER

NGUYEN, PHUONGCHAU BA

| ART UNIT | PAPER NUMBER |
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2665

DATE MAILED: 04/06/2004

26

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/049,288

Applicant(s)

COUTURE, LOUIS

Examiner

Phuongchau Ba Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1-27-04 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18,22-35,37,38,40-48,50-85,87-138 and 140 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18,22-35,37,38,40-48,50-85,87-138 and 140 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 21-22.
- ☐ Interview Summary (PTO-413) Paper No(s) _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Claim Rejections – 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1–18, 22–35, 37–38, 40–48, 50–85, 87–138, 140 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter such as “a plurality of algorithms embodied as software routines”(claim 1, lines 3–4; claim 25, lines 3–4; claim 41, lines 5–6), “continuously broadcasting software routines”(claim 54, lines 5–6; claim 69, lines 3–4; claim 83, line 3; claim 90, line 3; claim 115, lines 2–3; claim 130, line 5), which are not found in the original disclosure. Applicant is directed to pages 10–23 wherein “a continuous

broadcast of a number of firmware algorithms from a master DSP engine”(i.e.,
page 10, lines 2-3, page 13, lines 3-8).

Claims 2-18, 22-24 & 26-35, 37-38, 40 & 42-48, 50-53 & 55-68 & 70-
82 & 84-85, 87-89 & 91-114 & 116-129 & 131-138, 140 are rejected as being
depended on claims 1, 25, 41, 54, 69, 83, 90, 115, 130 respectively.

Moreover, the “software” limitation as recited in combination with other
limitations in claims 2-3, 8-10, 14-17, 22-24, 27-28, 31-33, 40, 42-43, 46-
47, 53, 59-60, 74-75, 84-85, 87-89, 94, 104-106, 118, 121-128, 131-137
are not found in the original disclosure as well.

Claim Rejections – 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35
U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another
filed in the United States before the invention thereof by the applicant for patent, or on an
international application by another who has fulfilled the requirements of paragraphs (1), (2),
and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 6, 17, 25-26, 41, 54, 69, 83, 90, 103-104, 115, 120, 129 are rejected under 35 U.S.C. 102(e) as being anticipated by Macrae (6,052,154).

Regarding claims 1, 25, 41, 54, 69, 83, 90, 115, 129:

Macrae (6,052,154) discloses a method for supporting digital signal processing (DSP) of a plurality of data types, the method comprising:

continuously broadcasting a plurality of firmware algorithms toward a plurality of DSPs {col.2, lines 11-23}

selectively monitoring for and receiving at least one firmware algorithm of the plurality of firmware algorithms in response to a determination of a data type the one of the plurality of DSPs is to process {col.2, lines 33-37}

processing data with the at least one firmware algorithm and the one DSP, the data being of the data type, the processing to process the data as it travels between networks {col.2, lines 33-37; fig.9}.

Regarding claims 6, 17, 26:

Macrae further discloses wherein the plurality of firmware algorithms are continuously broadcasted toward the plurality of DSPS (user terminals, settops) by a master DSP engine (broadcast computer 10, figs.1 & 9) that is implemented with a processor {claim 6}; wherein the plurality of firmware algorithms are stored in a memory (databases) of the master DSP engine (fig.1){claim 17};

Regarding claims 103, 104:

Macrae further discloses detecting a change in the type of data that the DSP is to process (claim 103); selecting a new firmware routine from the Plurality of broadcasted firmware routines in response to the detecting a change (claim 104){figs.9, 16-20 wherein the user selecting a broadcast program for recording}.

Regarding claim 120:

Macrae further discloses wherein said processor is a host CPU (36, fig.3).

Claim Rejections – 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 57, 61-63, 72, 76-78, 93, 95-97, 110 and 138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae.

Regarding claims 57, 61-63, 72, 76-78, 93, 95-97, 110 and 138:

Macrae discloses broadcasting video data. Although Macrae does not specify that wireless traffic can comprise data, voice data, audio data and facsimile data, such data types are considered old and well known in the art of wireless communications for the purpose of supporting various communication needs. Thus, it would have been obvious to one skilled in the art to provide Macrae's system with traffic comprising data, voice data, audio data, video data and facsimile data with the motivation being to support various communication needs.

7. Claims 4-5, 7, 14-16, 18, 29-30, 35, 37-38, 44-45, 50-52, 55-56, 70-71, 91-92, 107, 109, 111-114, 116-119, 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae in view of Kaewell (USP 5,436,955).

Regarding claims 4-5, 7, 14-16, 18, 29-30, 35, 37-38, 44-45, 50-52, 55-56, 70-71, 91-92, 107, 109, 111-114, 116-119, 121:

Macrae does not explicitly disclose the claimed features. However, in the same field of endeavor, Kaewell (USP 5,436,955) further discloses that the channel unit having the DSP engine which is configured as analog or digital channel unit is capable of communicating bidirectionally with the local telephone company central office in PCM format (see col. 2, line 62 to col. 3, line 8) {claims 4, 29, 44 and 116}; bidirectional host bus is depicted in figure 3 {claims 5, 30 and 45}; each TI voice channel carries traffic (DSP firmware) to one RAM for one DSP (see col. 3, lines 52-68) {claims 7, 14-16, 38 and 51-52, 117, 119, 121}; each DSP engine handles at least one channel {claims 18, 37, 50 and 118}; figure 1 shows the interconnection between the mobile switching center and the PSTN from which multiplexed data would be transmitted to the base station via the mobile switching center {claims 35, 55-56, 70-71, 91-92, 107, 109, 111-114}. Therefore, it would have been obvious to an artisan to apply Kawell's teaching to Marcrae's system with the motivation being to allow the base station to provide service to both analog and digital mode subscribers on the same system hardware.

8. Claims 105–106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae in view Pyle (5,467,286).

Regarding claims 105–106:

Macrae does not explicitly disclose the claimed inventions. However, in the same field of endeavor, Pyle (5,467,286) discloses replacing the firmware routine with the new firmware routine in a memory that is accessible to the DSP (claim 105); processing data having the new data type by executing the new firmware routine with the DSP (claim 106){col.2, lines 29–37}. Therefore, it would have been obvious to an artisan to apply Pyle's teaching to Macrae's system with the motivation being to provide user's device with main functionality firmware which can be updated over a multi-drop or network communication link without removing the user's device from service.

9. Claims 64-68, 79-82, 98-102, 122-128, 131-137 rejected under 35

U.S.C. 103(a) as being unpatentable over Macrae in view Neubauer (6,269,095).

Regarding claims 64-68, 79-82, 98-102, 122-128, 131-137:

Macrae does not explicitly disclose the processing comprising echo cancellation, voice coding, modem relay, facsimile relay.

Neubauer (6,269,095) discloses in figure 1 a gateway comprising a host computer 1006, voice payload data processing unit 1008, wherein a voice payload data processing unit 1008 comprises a plurality of digital signal processors DSP, wherein one DSP handles the call processing (e.g., real-time vocoding, silence suppression, echo cancellation, μ -law/a-law conversion, etc.), and the host computer 1006 (modem/facsimile relay) includes a conversion unit 1006a and a fax processing unit 1006 for supporting voice and fax operations {col.1, lines 21-43}. Therefore, it would have been obvious to a skilled artisan to provide Kaewell's system with the DSP handling the call processing (e.g., real-time vocoding, silence suppression, echo cancellation and the motivation being to support various communications needs {figs. 1-2, 4, 6}.

Response to Arguments

10. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

A/. Applicant argued that Macrae (6,052,154) fails to disclose the broadcasting of software routines.

In reply, the new limitation of "broadcasting of software routines" to claims have been rejected under 112 first paragraph for enablement as being a new matter to claims. Thus claims are being rejected without considering the new matter of "broadcasting of software routines".

B/. The allowable feature in dependent claim 139 had been added to independent claim 130 with the intention to make claim 130 allowable.

However, claim 130 also amended with new matter feature of "broadcasting of software routines" and being rejected under 112 first, thus even claim 130, now has the allowable feature of claim 139 (which is now canceled), is not allowable.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 703-305-0093. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PN

Phuongchau Ba Nguyen
Examiner
Art Unit 2665

DUCHO
PRIMARY EXAMINER

Ducho